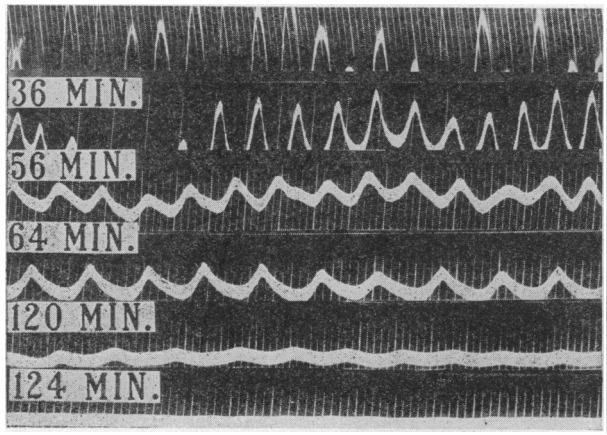

Chart F-1.—Effects of Hyoscin

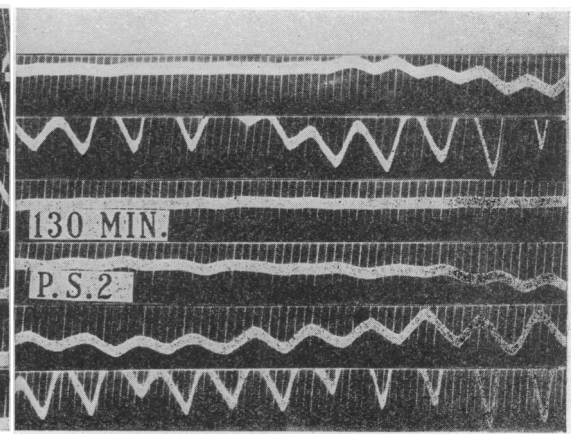

Chart F-2

lationship of hysteria to simulation is well illustrated by the efforts of members of the house staff, after much practice, to simulate organic tremors. The results in no way resembled an organic tremor, but showed surprising similarity to hysterical tremor. This experiment suggests the possibility of an hysterical tremor being little more than an unconscious simulation.

In studying the effect of hyoscin upon organic tremor (Chart F) we found, as have previous observers, that the tremors are flattened out without changing the rate or rhythm. After the tremors were removed it seemed a propitious time to test out the reported hypersuggestibility of the patient under the influence of hyoscin. Psychic stimuli at first chosen at random were so successful in reproducing tremor that we worked out a series of test words including some of neutral character and some heavily weighted with emotion. The resulting tremor was directly proportionate to the intensity of the emotional stimulus. We next compared bulbocapnin with hyoscin. Both obliberated tremor. In either instance emotional stimuli reestablished tremor, but bulbocapnin in every instance seemed the weaker of the two drugs.

Returning to our previous problem we tried out various psychic stimuli on the same subject with and without a previous injection of hyoscin. In both instances a neutral stimulus produced no variation in tremor, and a strongly emotional stimulus produced a definite variation in the tremographic records. The response of the patient under the influence of hyoscin seemed the more vigorous and prolonged.

From the above experiments it seems that tremor may be influenced by the emotional states. We hope to show in a later communication that this variation of tremor elicited by emotional stimuli may be of clinical usefulness. It is possible that the information so obtained may parallel and perhaps supplement the results given us by the psychogalvanic current.

CONCLUSIONS

1. The apparatus described above is simple, easy to operate, is free of inertia and is especially useful in recording fine tremor.

2. The normal individual exhibits tremor which can be divided into four types. These tremor types roughly parallel the nervous tension found clinically.

3. Tremographic records of acute hyperthyroidism, induced hyperthyroidism as the result of feeding thyroid extract, results produced by injecting adrenalin, as well as some of the hysterical states all showed a similarity great enough to suggest some mechanism common to them all.

4. Our results would indicate a relationship between tremor and emotions. Variations of tremor elicited by emotional stimuli may ultimately turn out to be of clinical usefulness—even paralleling the results obtained from the psychogalvanic current.

5. Hyoscin would seem to amplify the emotional effect on tremor.

6. The greatest usefulness of these experiments is to increase our interest in such an important diagnostic sign as tremor.

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CARCINOMA WITH MUCOCELE OF APPENDIX

REPORT OF CASE

By M. HAWKINS TOPPING, M. D.
Los Angeles

H. S., a man, age twenty years.

February 6, 1928, patient seen about midnight. Complained of severe pain in lower right abdomen.

Family History.—Mother died of some acute intestinal trouble. Refused operation.

Personal History.—Diphtheria (very bad case). Tracheotomy was performed at age of two. Tonsillectomy.

Present Illness.—On February 6, 1928, patient developed some pain in region of umbilicus which gradually increased in severity, and became localized in right iliac fossa. There was marked tenderness on pressure at McBurney's point. Patient became nauseated. On February 7, patient sent to hospital. After admittance pain became more intense; tenderness over entire abdomen. Patient had rather severe chill. As soon as possible after admittance to hospital he had a white blood count of 16,000. Patient operated for appendicitis. Specimen vermiform appendix.

Examination, February 7, 1928.—Specimen consists of appendix exhibiting marked variation from the normal. It is larger in diameter with inflammatory changes in the surrounding fat. Upon one side of it is a ruptured cystic cavity which apparently contained mucus and hemorrhagic contents. The whole mass measured 5.5 x 3 x 2 centimeters. The wall of the ap-

pendix is very thick, and in two places there are obliterations of the lumen; at the tip and near the base, there is also a yellowish diffuse mass in the mucosa near the base. At one place in the wall of the appendix there is a mucocele measuring 1.5 centimeter in diameter.

Microscopic.—Section through the yellowish colored mass in the mucosa shows it to be a carcinoma containing solid groups of cancer cells. Section through the wall of the ruptured cystic cavity mentioned above shows an inflammatory and hemorrhagic connective tissue wall.

Diagnosis.—Chronic appendicitis with appendiceal carcinoma and a mucocele. Apparently the carcinomatous tissue is completely removed. This type of carcinoma exhibits only a small degree of malignancy.

Structure.—Two main varieties of the tumor appear: (1) columnar cell or gelatinous adenocarcinoma, and (2) small polygonal, spheroidal cell alveolar carcinoma. The former type presents the same age incidence (fifty-two years) and general malignancy as other similar intestinal carcinomas, while the former occur at any early age and are almost invariably benign (Rolleston, Jones). Transitional forms of intermediate age incidence are observed.

Carcinoma of appendix has been recognized and emphasized by Elting, Maschkowitz, Batzdoff, McCarthy, Zaaijer, Milner, McWilliams, Kudo, Roketansky, Balduf, Batzdof, Konjetzny, Kelly, and Neugibauer. The clinical course is merged with that of chronic appendicitis (McWilliams, Rolleston, Jones, Lit.), emphasizing the principle that each organ has its own form of carcinoma.

In conclusion, patient made a rapid recovery. So far no untoward symptoms of return.

Patient working every day.

1202 Brockman Building.

JAUNDICE IN ACUTE INFECTIOUS MONONUCLEOSIS (GLANDULAR FEVER)

REPORT ON TWO CASES

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A LARGE number of cases of glandular fever have been reported in recent years, and comprehensive summaries of the symptomatology may be found in modern textbooks and collective reviews. Jaundice as a prominent symptom or complication was reported first by Mackey and Wakefield[1] in 1926, and no other similar case has been recorded in the literature up to the present time.

Their patient was a white, male, twenty-three years of age, whose illness began with fever, sore throat, and glandular enlargement. On the sixth day of the illness jaundice was noticed, and the patient complained of dull epigastric pain. The tonsils had been removed previously. The liver and spleen were slightly enlarged and there was moderate general glandular enlargement. The leukocyte count was 15,800 per cubic millimeter, with 91 per cent mononuclears. The Wassermann reaction with serum was negative. No bile salts were present in the feces. No mention was made of bile in the urine. There was an immediate direct van den Bergh reaction with serum. The patient made a complete recovery and at the end of two months the blood counts were normal.

The two cases to be reported here are similar to the case reported by Mackey and Wakefield.

CASE REPORTS

CASE 1.—A white, male, twenty-three years of age, became ill October 14, 1924, with malaise, fever, coryza, nausea, and pain in the "pit of the stomach." There was considerable abdominal distress after eating. When first examined, October 20, 1924, his temperature was 102 degrees F. The superficial lymph nodes were all moderately enlarged. The pharynx was red and the tonsils were large and red. The spleen was felt just below the costal margin. There was considerable tenderness on palpation of the epigastrium, but the liver was not felt. The hemoglobin and red cell count were normal. The leukocyte count was 15,700 per cubic millimeter with 84 per cent mononuclear cells. The fever varied from 101 to 102 degrees F. each day. On October 25, 1924, there was more marked epigastric tenderness and the liver edge was felt at the costal margin. There was also moderate jaundice of the skin and sclerae. The urine contained bile. The feces were of normal color. The jaundice persisted for nearly two weeks. The fever gradually subsided and the patient made an uneventful recovery. January 23, 1925, the leukocyte count was 7300 per cubic millimeter with 37 per cent mononuclear cells and 62 per cent polymorphonuclear neutrophiles.

CASE 2.—G. C. M., a white, male, twenty years of age, was taken ill March 2, 1928, with malaise, chills and fever. He was confined to bed for a week and then attempted to be about, but weakness, fever and night sweats forced him to bed again. His throat became tender and sore. When first examined, March 19, 1928, there was moderate enlargement of the superficial lymph nodes and marked jaundice of sclerae and skin. The tonsils had been removed previously, but there was a dirty, patchy exudate over the pharyngeal mucous membrane. The spleen was palpable just below the costal margin. The liver area was tender on pressure, but the liver was not felt. The urine contained traces of albumin and bile. The feces were of normal color and contained bile. The leukocyte count was 15,400 per cubic millimeter with 87 per cent mononuclear cells. Hemoglobin and red cell count were normal. Platelets were unusually numerous in the smears. There was a positive direct Van den Bergh reaction with serum. The icteric index was 39. A Wassermann reaction with jaundiced serum was doubtful, but later both Kahn and Wassermann tests were negative. The exudate in the pharynx contained many cocci and a few spirallar and fusiform organisms. The fever varied from 99 to 101 degrees F. for a few days, and then gradually receded. March 27, 1928, the leukocyte count was 8000 per cubic millimeter with 74 per cent mononuclears. The patient made an uneventful recovery.

Discussion.—The clinical and hematological features of these three cases are so similar and typical that it seems improbable that an error in diagnosis could have been made. A typical form of acute catarrhal jaundice was readily excluded by study of the blood smears, and acute leukemia was ruled out by the benign course. The blood picture of my cases differed in no particular from that observed in other examples of this disease and reported in detail by Evans and Sprunt,[2] and Downey and McKinlay.[3] Most of the mononuclear cells resembled those present in normal blood and contained many azurophile granules. There were also large numbers of lymphocytes, both large and small forms, some of which were apparently very young. In the cases of glandular fever which I have observed, the mononuclear cell formula of the blood has varied as described by Downey and McKinlay.[3] Histocytes have predominated in some cases and cells of the lymphocytic series in others. This is not remarkable since the organs grossly involved in the disease house the lymphatic and reticulo-endothelial cell systems. Sections of lymph nodes and tonsillar tissue reported on by Evans and Sprunt,[2] Downey and